REMARKS

Reconsideration is respectfully requested in view of the foregoing amendments and the remarks which follow.

The Examiner has objected to claims 6-15 and 17-20 as being in improper multiple dependent claim form under 37 CFR 1.75(c). By this amendment the improper multiple dependency of the claims has been corrected. Accordingly, the objection should be withdrawn and the claims should be treated on the merits.

Claims 1-3, 5 and 16 stand rejected under 35 USC 103(a) as being unpatentable over Chung et al. (WO 03/065050 A2) in view of McNeil et al. US 6,845,670 B1. This rejection is respectfully traversed.

There is no suggestion that Chong and McNeil can be combined. In re Fritch [972 F.2d 1260, 23 USPQ2d 1780, 1783-83 (Fed. Cir. 1992)] it was found that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. Under Section 103(a), the teachings of references can be combined *only* if there is some suggestion or incentive to do so. The mere fact that the art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

Applicants respectfully submit that this rejection is improper because the examiner has identified no suggestion in the prior art of the desirability of the combination proposed by the examiner. Indeed, the only document of record in this prosecution which suggests the desirability of the combination proposed by the examiner is applicants' specification. However,

the use of the claimed invention as an instruction manual or template to piece together the teachings of the prior art is impermissible hindsight.

Further, McNeil teaches away from a combination with Chong, inasmuch as McNeil describes only a single accelerometer which teaches away from using more than one accelerometer to detect motion in more than one direction (see column 7, lines 7 to 20 quoted below).

Even if Chong and McNeil can be combined, the combination would not produce the applicants' invention. Chong et al describes at method of forming an accelerometer but, as the examiner points out, does not describe forming an accelerometer that has a third sensor to detect acceleration in a third (out-of-plane) axis. McNeil describes a three-axis accelerometer.

Chong et al does not describe the steps of: patterning metal onto the first major surface of the first wafer to form electrical connections for a third accelerometer; etching a portion of a first major surface of the second wafer; bonding the first major surface of the first wafer to the first major surface of the second wafer so that at least part of the etched portion of the second wafer is above at least part of the metal on the first wafer; and depositing and patterning a masking layer on the second major surface of the second wafer defining the shape of a first accelerometer, a second accelerometer and the third accelerometer. These steps are all required in applicant's claim 1.

McNeil does not describe the steps missing from Chong. McNeil does not describe patterning metal onto the first major surface of the first wafer to form electrical connections for a third accelerometer. The metal patterned onto the first wafer in McNeil isn't for a third accelerometer, but, rather, for a third axis sensing portion of a single accelerometer. In fact

McNeil teaches away from providing three accelerometers on one wafer in column 7, lines 7 to 20, which states as follows:

> These transducers may be less complex than existing three-axis transducers, with some embodiments requiring only one proof mass and one movable element bond pad, since all three sense axes use the same intermediate layer. By contrast, in devices utilizing separate transducers to sense in each direction, each transducer has its own proof mass and is supplied with its own movable element bond pad. Furthermore, the transducers disclosed herein are inherently less expensive to manufacture than three-axis devices fashioned out of individual transducers, since these transducers may be fabricated as unitary packaged devices whose fabrication costs are about the same as that for a single axis transducer. By contrast, the cost of fabricating a three-axis device fashioned out of individual transducers is approximately three times as much.

McNeil does not provide a second wafer. The second layer (52 in figures 15 – 17) in the accelerometer of McNeil is provided by deposition and in preferred forms by depositing through chemical vapor deposition (see column 8, lines 13 – 16). Because no second wafer is provided in McNeil the second wafer cannot be etched or bonded to the first major surface of the first wafer.

Further only one accelerometer is provided by McNeil and not three as required by claim 1 of the present application.

The combination of Chong and McNeil does not describe all of steps of claim 1 of the present application. For example, neither Chong nor McNeil describe bonding the first major surface of the first wafer to the first major surface of the second wafer so that at least part of the etched portion of the second wafer is above at least part of the metal on the first wafer.

Neither Chong nor McNeil describe deposition and patterning a masking layer on the second major surface of the second wafer defining the shape of a first accelerometer, a second accelerometer and the third accelerometer.

It is clear from claim 1 of the present application that three separate accelerometers are formed using the method of the invention. For example, the step of patterning metal onto the

third major surface of the first wafer is to form electrical connections for a third accelerometer. Chong does not describe a third accelerometer and neither does McNeil. The step of deposition and patterning a masking layer on the second major surface of the second wafer defines the shape of the first, second and third accelerometers. This step is missing from both Chong and McNeil.

It is not clear how Chong and McNeil can be combined. Would combining Chong and McNeil produce a single accelerometer or three separate accelerometers? McNeil teaches away from three separate accelerometers. Would combining Chong and McNeil produce an accelerometer with a cavity in the first wafer and a second wafer? Chong teaches away from the release etch of McNeil and by providing a cavity requires a second wafer rather than deposition of material to form the accelerometers as taught in McNeil. Chong also provides a first wafer of insulating material while the first wafer of McNeil is polysilicon. It is unclear how these two document could be combined and what would result from such a combination.

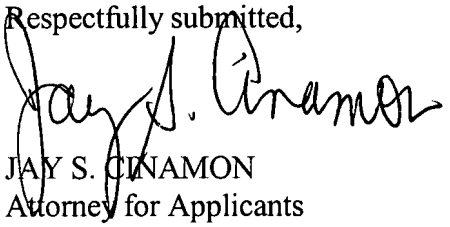
Since claims 1-3, 5 and 16 distinguish over the combination of Chong and McNeil, the rejection has been overcome and should be withdrawn.

Claim 4, which has been rejected for obviousness over the combination of Chong and McNeil and further in view of Lee, US 4,934,190 also distinguish over the combination of references since claim 4 depends from independent claim 1 and claim 1 distinguishes over the applied art.

The issuance of a Notice of Allowance is respectfully solicited.

Please charge any other fees which may be due, and which have not been submitted herewith, to our Deposit Account No. 01-0035.

Respectfully submitted,



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